Greetings:

We are currently seeking surface fuels data that will be used in the LANDFIRE project. LANDFIRE is a multi-agency research project developing methods and products for mapping fuels, vegetation and fire regimes across the entire U.S. The fuels data will be used for two specific products. First, a *fuels database* will be analyzed and fuel loading mapped across the entire U.S. at a 30-meter resolution. The resulting data layer, like all the layers developed for LANDFIRE, will be available for download from the LANDFIRE website. Second, we will develop a set of *Fuel Loading Models* (FLMs). Fuels data will be analyzed using ordination procedures to identify natural fuel groupings. Each grouping will then be tested using the fire effects simulation model, FOFEM, and fuel groupings that exhibit similar fire effects will be aggregated. Each aggregation will be one of the final FLMs. A key will be developed to help managers in determining FLMs in the field. The FLMs and associated key will be published as a Forest Service, General Technical Report.

Because of the extensive coverage of the final products and the inherently high variability of fuels, we need to assemble a quality, high-resolution data set. We recognize that organizing and sending your fuels data will occupy valuable time. We hope, however, that representing local fuel conditions in the FLM and LANDFIRE maps will benefit you. We expect them to be widely used for a variety of applications at local and national scales. All data sources will be acknowledged.

Surface fuels data useful to LANDFIRE include the following:

**Table 1. Surface fuels data useful to LANDFIRE.**

| **Fuel Type** | **Size** (particle diameter) | **Description** |
|---|---|---|
| Moss, Lichen | Any | Biomass of live and dead moss and lichen |
| Shrub -- live | Any | Biomass of live shrub fuels |
| Shrub -- dead | Any | Biomass of dead shrubby material suspended above ground |
| Herb – live | Any | Biomass of live herbaceous plants including grasses, sedges, forbs, ferns, and lichen |
| Herb -- dead | Any | Biomass of dead herbaceous plant parts suspended above ground |
| Litter | <0.25 cm | Biomass of recently cast needles, leaves, cones, bark, buds, etc. |
| Duff | None | Biomass of partially decomposed litter |
| Needle Drape | Any | Biomass of conifer needles on regen, shrub and herb |
| Regeneration | Any | Trees per acre and typical crown length, by species, of live tree regeneration fuels (<6 ft) |

| **Fuel Type** | **Size** (particle diameter) | **Description** |
|---|---|---|
| Downed dead woody | 0 to 0.25 in. | Biomass or counts of 1-hour timelag woody twigs and branches |
| | 0.25 to 1 in. | Biomass or counts of 10-hour timelag woody twigs and branches |
| | 1 to 3 in. | Biomass or counts of 100-hour timelag woody branches |
| | 3 to 10 in. | Biomass or measurements of 1000-hour timelag branches and logs |
| | 10 to 20 in. | Biomass or measurements of 10,000-hour timelag logs |
| | 20+ in. | Biomass or measurements of 10,000-hour+ timelag logs |

Because of the nature of the analysis and uses of the final products there are a number of additional data requirements. Data must be geo-referenced in UTM or lat-long coordinates and the data must represent fuel conditions at the sampling site (not for a larger polygon such as a watershed). Most attributes should be reported as biomass (tons per acre preferred). We can calculate DWD biomass from raw data (Brown's transects) if needed. Tree regeneration should be summarized to density by species. All the data must have the associated sampling information such as; plot size, transect lengths, bulk density, etc. We do not need data for each field in table 1 but expect the data set to include all the components that would contribute significantly to the fire effects at the sampling point. If you have data that you think would be useful but don't appear to meet these requirements, feel free to contact us.

Please distribute this notice widely.

Thank you for your help. If you have questions, comments, or data to share please contact:

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